



Stormwater Needs Assessment Project

Fairfax County Stormwater Advisory Committee Stormwater Needs Assessment Project Summary of Discussions and Recommendations

Executive Summary:

Over the past seven months, a committee of citizens representing a broad range of interests throughout the County, worked with the Consultant Team to identify the needs, issues and challenges of stormwater management in Fairfax. Through a process of discussion paper review, consultant and staff presentation, and facilitated discussions, priorities were identified and a definition of extent and level of service was crafted to guide the Consultant in preparing a five-year program plan and funding analysis. In addition, the Committee reviewed funding options available to the County for a dedicated resource to address investments in capital improvements, water quality protection and long-term maintenance and operation of the drainage systems.

In the seventh meeting of the Committee, members developed the following statement of recommendations to the Board of Supervisors:

- **The Committee has unanimous support for a long-term dedicated source of funding for the stormwater program.**
- **The Committee embraces the County Executive's FY 2006 budget with a dedication of one-cent on the tax rate for stormwater in addition to the current level of funding.**
- **The overwhelming majority of the Committee supports the implementation of the utility fee, effective in FY 2007, for the purpose of addressing the level of service outlined in the projected program. The majority believes that the user-fee approach addresses the following issues:**
 - **Equity (*the basis upon which any one property pays for services*)**
 - **Fairness (*includes all properties, as allowed*)**
 - **Incentive for good practices**
 - **Stability for continuation of projects needed to be addressed in the watershed plans**
 - **Recognition of current efforts made by private land-owners in support of overall program objectives**
 - **Effectiveness over the long term, meeting long-range goals**
 - **Elimination of the Pro Rata program to provide fairness in the burden placed on the development community**
 - **Implementation of the user-fee system through the dedicated budget (FY 2006) by addition of staff and other resources**
 - **Reduction of the tax rate up to 2 cents, based on current rate of revenue generation, in FY 2007 (*to be based on actual GF expenditures in FY 2006*)**



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Background:

In August and September 2004, the Board of Supervisors created and appointed a citizen-based Committee to advise the staff and consultant team evaluating the program and funding needs to address stormwater issues in the County. The Committee met seven times over the period of October 2004 and March 2005.

Committee Mission and Membership:

The Fairfax County Stormwater Advisory Committee was established to:

1. Provide advice and input into identifying the *problems, needs and issues* within the current stormwater program.
2. Assist in establishing *priorities* for stormwater services in Fairfax County.
3. Provide advice on *level and extent of stormwater service*, investment in the capital program, approach to water quality protection services, and other key policies that will guide the stormwater program.
4. Review policy on stormwater *funding mechanisms*, including user fees, and explore rate methodologies, rate structures and rate bases.
5. Make *recommendations* to the Board of Supervisors regarding the dedicated funding needed to address stormwater needs in the community.

Member			Organization Represented
Mr. Harry	Glasgow		Watershed Organization
Dr. Omar	Kader		Small business commission
Ms. Sally	Ormsby		No. VA. Soil and Water Conservation District
Mr. Chris	Champagne		Commercial Property (large)
Rev. Tim	Craig		Interfaith Community
Mr. Russell	Wanek		Federation of Citizens Associations
Mr. Robert	McLaren		Environmental Quality Advisory Council
Mr. Robert	Jordan		At-large member with specific expertise
Mr. Michael	Rolband		At-large member with specific expertise
Ms. Jeanette	Stewart		Apt/Condo Property
Mr. Lewis	Rauch		Fairfax County Public Schools
Ms. Kimberly	Davis		League of Women Voters
Mr. Mark	Trostle		No. VA. Building Industry Association
Mr. Greg	Prelewicz		Fairfax Water (Authority)
Ms. Jessica	Fleming		Fairfax County Chamber of Commerce
Ms. Mary Beth	Coya		No. VA. Assoc of Realtors
Mr. Larry	Butler		Home Owner Associations

The Committee reviewed the body of work completed during the summer of 2004 by the staff and the Consultant Team on the feasibility of changes in the overall stormwater program and the effectiveness of a user-fee system for funding the overall program. Key focus areas of discussion and recommendation are summarized below. Minutes of all meetings and discussion/policy papers prepared are attached.



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Policy and Program Discussions:

A. Extent of Service

Considerable discussion regarding the extent of the physical system that should be under the management of the County resulted in the identification of the following concepts for the delineation of responsibility:

1. The County should exercise planning and regulatory authority, within its legal limits and mandates, over the entire drainage system, both publicly and privately owned. The County should continue with its current standards as set forth within the Public Facilities Manual (PFM); however, as strategies and best management practices evolve over time, the County should evaluate their standards to ensure that appropriate system performance is achieved.
2. It is recognized that the County is very limited in its influence over Virginia Department of Transportation (VDOT) drainage systems within the highway network; however, when the County partners with VDOT, every effort should be made to have the standards of system design meet the County's goals for water quality protection as well as water quantity controls. The County should consider cost-sharing with VDOT when County standards are adopted for a VDOT roadway project.
3. The County should engage the Virginia Department of Transportation in discussions regarding an increased role of the County for some state-system drainage components. The County should ensure that compensation is provided to them for any responsibility taken on behalf of the State.
4. The County needs to ensure proper operation and maintenance of the total drainage system. The County should consider phasing in the public maintenance of privately owned system components. This would follow a process of inventory and inspection of the total system, GIS-based, enabling analysis through basin models to identify high priority system improvement needs.
 - a. The County should establish a standard for private facility maintenance and incorporate this standard through ordinance with enforcement strategies.
 - b. The County should survey private facility owners to determine their needs and expectations.
 - c. The County should evaluate, based on the information gathered through inspection of the overall system and a survey of owners, whether the County should shift its current role (inspection and regulation) regarding privately-owned



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system components to providing maintenance on the private systems through executed maintenance agreements that limit County liability and clearly delineate the responsibilities of each party (i.e., owner and County).

B. Level of Service

The County should invest in resources sufficient to move the current maintenance, operation, regulation, planning and capital improvements for the stormwater system, including the protection of streams and stream corridors, to a proactive management strategy that anticipates challenges and has in place appropriate programs to provide for environmental protection and public safety, including protection from property loss. The County should adopt as a guiding principle that similarly situated properties be treated in a similar and consistent manner. This should be a long-term goal and a standard for evaluation of the effectiveness of the overall services provided on behalf of the public.

1. The County needs a replacement schedule for infrastructure and that replacement standard should be set to meet build-out conditions in the watershed.
2. The County should examine the use of innovative, non-hardened solutions to stormwater management issues. The County should utilize Low Impact Development strategies where possible.
3. The overall stormwater management program should embrace the Board of Supervisor's recently adopted *Environmental Excellence in Fairfax County: A 20-Year Vision*.
4. The County should maintain its "stream index" metric, which allows it to monitor improvements in stream health and viability.
5. The County should account for the existing physical infrastructure, regardless of ownership, and future physical infrastructure by maintaining a physical inventory, including ownership identity. This should include an effective inspection program both to maintain the inventory and to identify condition and potential improvements required.

C. Program Priorities

The principle of "similar and equal services provided to like-situated properties" should be a long term goal. The Committee reviewed the preliminary program assessment study results dated July 16, 2004 and generally concurred with the initiatives identified. The Committee offered the following emphasis on program priorities.

1. Show immediate and tangible results from an increase in funding.
2. Secure a dedicated and equitable funding source for stormwater management program.



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3. Establish baseline standards to ensure equitable program application and administration.
4. Establish and enforce consistent maintenance standards for both public and privately-owned facilities, best management practices, and conveyance system components.
5. Establish an adequately funded capital infrastructure replacement program.
6. Maintain a pollution prevention program for compliance under the VPDES permit, addressing County-provided services such as construction project site compliance and facilities management.
7. Educate the public on a continuous basis to create a better understanding of the challenges the County is facing in protecting water quality and maintaining a large, aging infrastructure.
8. Provide sufficient staff to deliver the services needed.

D. Program Funding:

The Committee identified the following principles that should be followed in evaluating the primary funding strategy for the needed improvements in the stormwater program:

Table 1 – Principles for Funding Options

Principle or Goal for Funding Option	General Fund	User Fees
1. Distribute cost of services on the basis of demand for those services. (equity)	No	Yes
2. Recognize positive behaviors by land owners when they reduce impacts of discharges on peak flow and pollutant loading.	No	Yes
3. Dedicate funding to the objectives of the stormwater program so that funds cannot be redirected to other competing priorities.	Limited	Yes
4. Encourage greener development through the funding strategy.	No	Yes
5. Make the funding mechanism applicable across all property owners. (fairness)	Limited to taxable properties.	Yes, within limits based on enabling legislation.
6. Apply the funding strategy uniformly across the County.	Yes	Yes
7. Utilize bond debt to support the capital improvement program.	Yes, General Obligation Bonds with voter approval.	Yes, Revenue Bonds, with Board approval.



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E. Applicability of a User Fee System and Potential Rate Impacts:

Based on the Preliminary Rate Analysis completed by the Consultant Team, the Committee reviewed the potential rate, established on a Cost of Service that utilized the following performance factors in defining resources needed to accomplish the goals.

- Bring all dams that are owned or operated by the County into full regulatory compliance within 24 months, addressing high-risk sites first. Maintain the integrity of the structures routinely, investing as necessary in rehabilitation of the dam.
- Maintain all necessary data in support of the floodplain management program and partner with FEMA to update the County floodplain maps within the first 36 months of the expanded program. Evaluate the Community Rating System program and determine an appropriate role for the County in support of this effort and implement strategies as needed.
- Provide annual, on-going support to the County Geographic Information System staff to bring the data layers that are important to the stormwater program up to date and to keep them current. This includes the update of the planimetric data on imperviousness as well as other databases on the drainage infrastructure, floodplains, stormwater management facilities, etc.
- Establish a full-time dedicated position to public education on all elements of the stormwater program and services provided by the County. Expand the public education program to reach all citizens and businesses over the next five years, addressing cultural and language issues as necessary.
- Initiate the update of all Watershed Plans no later than July 2007 with the goal of completion by July 2008.
- Initiate changes in the level of service for the operations and maintenance of the County owned or operated drainage system components, to move from a “high-risk only” response capability to resolving all requests for service within 12 months of receipt from the community; as well as service needs identified by routine inspection, and emergency service issues. This may result in projects shifting to the capital improvement program at which time they would be prioritized within the overall CIP program. It is anticipated that this level of service could be achieved within the first five years of the expanded program.
- Sustain the investment in the CIP at no less than 40% of the overall stormwater program budget over the next 20 years.
- Initiate and/or maintain a program of services that will meet the requirements of the MS4 permit on an annual basis. This includes a review of the permit in FY 2006 to position the County for the renegotiation of this permit in the first quarter of FY 2007.



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- Incorporate Low Impact Development strategies, after evaluation of specific BMPs, into the PFM and appropriate ordinances, beginning in FY 2006 and as technology changes; maintain an assessment protocol to determine functionality, long-term maintenance requirements, education initiatives and needed improvements. This includes inspection and testing of the LID practices over time to ensure that the County can evaluate their performance and identify changes needed.
- Complete an assessment of the existing drainage infrastructure under County ownership and/or operation, including the underground system by FY 2010 and evaluate the impact of County operation of all stormwater management facilities, including LID practices.

The Consultant presented the summary of costs anticipated for a five-year planning period to the Committee for their review. The Cost of Service is summarized by program functions as follows and the full summary can be found in the Preliminary Rate Analysis Report.

Table 2 – Summary of Costs and Preliminary Rate

Cost Center	2006	2007	2008	2009	2010	2011
Engineering and Design	\$ 3,378,369	\$ 2,470,923	\$ 2,768,074	\$ 2,770,870	\$ 2,925,964	\$ 2,967,492
Operations and Maintenance	\$ 9,211,229	\$ 11,764,281	\$ 14,364,877	\$ 19,251,477	\$ 19,438,149	\$ 21,536,414
Plan Review and Erosion Control	\$ 1,398,133	\$ 1,813,331	\$ 1,844,062	\$ 2,154,266	\$ 2,301,023	\$ 2,335,067
Construction Services	\$ 10,209,454	\$ 11,570,331	\$ 16,253,445	\$ 14,886,726	\$ 15,633,245	\$ 18,289,920
Watershed Mgmt and MS4 Compliance	\$ 6,473,887	\$ 5,282,079	\$ 2,115,420	\$ 2,261,241	\$ 2,309,259	\$ 2,333,641
General Expenses	\$ 1,529,963	\$ 3,265,111	\$ 3,539,573	\$ 4,139,130	\$ 4,166,352	\$ 4,277,039
Total Program	\$ 32,201,034	\$ 36,166,056	\$ 40,885,451	\$ 45,463,710	\$ 46,773,991	\$ 51,739,574
Preliminary Rate		\$ 77.52	\$ 77.52	\$ 88.80	\$ 88.80	\$ 95.40

FY 2006 is included in the preliminary analysis and is recommended to be funded through general revenues of the County. The user-fee revenue would begin in FY 2007. The Preliminary Rate is shown in the above table as well. The Rate represents the annual cost for one-billing unit, which is defined as 3398 square feet of imperviousness, the recommended billing basis. The percent of billing units by land use was provided to the Committee as well.

Table 3 – Billing Unit Analysis by Land Use Category

Land Use	Number of Billing Units	Percent of Total Units
Single Family Residential	172,339	39%
Multifamily Housing		
Apartments	12,175	3%
Townhomes	43,038	10%
Condos	9,812	2.5%
Mobile Homes	1,569	0.5%
Commercial	156,132	34%
Industrial	6,691	2%
Institutional	40,913	9.5%
Total Billing Units	442,669	



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The Committee was advised that this data is based on the initial analysis of land use and imperviousness completed in 1997 for a previous user-fee analysis. The factors were updated based on the 2004 Tax Assessors File for land use and percent increases in development.

Incorporated in the rate analysis is a strategy to address the private investment made in the overall operation and management of the drainage system, including stormwater management facilities. The rate structure includes a credit program to recognize the mitigative impacts of on-site controls and treatment facilities that reduce the demand for services from the County program. Should the Board choose to establish a utility service fee, the details of the credit program will be further defined in a Credit Manual or similar document.

The rate analysis projected the fee for one billing unit over the five year period, shown in Table 1 above, is summarized in Table 4 as follows:

Table 4 – Summary of Preliminary Rate Projection

Fiscal Year	Rate per Billing Unit	
	Monthly	Annually
2007	6.46	77.52
2008	6.46	77.52
2009	7.40	88.80
2010	7.40	88.80
2011	7.95	95.40

It is understood by the Committee that, should the County choose to pursue this funding option, an update of the rate analysis will be completed based on the creation of new data to support the billing file.

After considerable discussion and consideration of the program, as well as the goals and priorities for the next decade for the County stormwater program, an overwhelming majority of the Committee endorsed the creation of a stormwater utility funding strategy, using FY 2006 as the year to build the tools for implementation and the initiation of the fee as the primary funding strategy effective in FY 2007. The full statement of the Committee's recommendation is found on page one of this summary.